

# Gracemere Substation FAQ's



## Gracemere Substation and Powerline Project Frequently Asked Questions

### Why is the project needed?

The demand load on the existing Malchi substation which supplies Gracemere is approaching capacity, and additional network capacity needs to be created to ensure a reliable supply for the township and to provide for future regional growth.

This increasing demand for electricity has resulted from a growing local population, new housing estate developments and additional industrial load requirements from the Gracemere industrial area. Our enhanced lifestyle choices contributing to the use of energy-hungry devices like air conditioners and plasma televisions are also increasing the pressure on the existing electricity distribution network.

This demand led us to identify that construction of a new substation was required to ensure the Gracemere community continues to be provided with a reliable power supply and adequately caters for economic growth and supports future regional development.

### Did you consider other options?

#### Substation:

We undertook a thorough assessment of a number of potential locations for the substation site in the Gracemere area.

We investigated available land based on proximity to the electricity load, site access, network access and minimal social and environmental impacts.

The new substation for Gracemere needs to be located within the township to supply electricity to the growing number of residential estates being developed and planned for, as well as supplying the industrial area on the western approach to the town along the Capricorn Highway.

The selected location will also cater for increased demand from future commercial development within the Gracemere CBD. With the support of the Rockhampton Regional Council, we believe the selected substation site will offer the lowest overall environmental, social and economic impact to the Gracemere community.

### **Powerline location:**

We investigated a number of powerline route options before the proposed powerline corridor was selected, taking into consideration social, environmental, design and cost factors.

### **What planning approvals are required?**

The substation does not require planning approval under the current planning scheme.

While approval was not required, we chose to take a collaborative approach, working with Rockhampton Regional Council and the community to identify a suitable location for the substation. We have also taken guidance from Local and State planning agencies to ensure the project takes into consideration all potential impacts.

The proposed substation site was purchased as a private sale.

### **What were the environmental, design and cost factors that were considered before the line route was proposed?**

Main considerations in selecting the powerline route included:

- Minimising the potential impact on homes and businesses, recreation areas, scenic and tourism areas, conservation and heritage areas, or areas zoned for future development
- Avoiding, where possible, extremely rough or steep terrain including water bodies
- Minimising the impact on small land parcels and cultivated land
- Minimising clearing of native vegetation and its potential habitat values and any impact on endangered and vulnerable ecosystems, or threatened flora and fauna species.

### **What will the substation look like?**

The substation will have a modern appearance and be designed to minimise any impact on the visual amenity of the area. Artist's impressions will provide the community with an idea of what the substation will look like on site.

### **Will the substation be fenced?**

All of our substations are fully enclosed by fencing as a security measure to both protect the community and to avoid any damage occurring to electrical infrastructure.

This fencing can be a combination of chain mesh fencing for security purposes, and/or timber fencing to provide screening of the substation from the street and help improve the visual amenity.

The design of the substation fence and material choice will be determined during the design phase and form part of the community consultation process.

### **Will the substation create a lot of noise?**

Low levels of background noise are associated with normal substation operation. The faint hum is expected to be indistinguishable from surrounding sounds, however this will be considered as part of the design.



As part of the environmental impact assessment for a substation site, a noise assessment is carried out in accordance with the [Environmental Protection Act 1994, Environmental Protection Policy \(Noise\)](#), and where necessary, noise mitigation measures are put in place. A noise assessment for the Gracemere substation has been completed and noise control measures have been incorporated into our substation design.

## When will the substation and powerlines be built?

The new Gracemere substation and the powerlines connecting the new substation to the existing Egans Hill substation is expected to be constructed between January 2021 and early 2022.

We will continue to provide the community with information about the project and will advise residents of the expected construction dates as the project progresses.

## Why aren't powerlines near residential communities placed underground?

The cost to underground powerlines is significantly more than constructing them above ground.

Electricity infrastructure projects are a necessity, and the solutions proposed must be considered cost effective. We aim to balance the costs, which are ultimately paid for by our customers, with any potential impacts from the infrastructure's construction on the community.

We are required to meet obligations under the National Electricity Law which promotes the efficient investment in, and operation and use of electricity services for the long-term interests of electricity consumers.

## Are there any health risks?

When substations and powerlines are discussed, many people ask about electric and magnetic fields (EMF). EMF are generated by any object with electric current flowing through it including powerlines and all electrical appliances used in homes such as televisions, washing machines, microwaves, hair dryers and computers.

The level of EMF from powerlines depends on the amount of current flowing along the lines. Fields decrease in strength the further you move away from the source. Putting powerlines underground does not reduce the levels of EMF as the earth does not create a shield.

Fortunately, EMF can be reduced by the configuration of substation infrastructure and powerlines. The project team will design the transmission lines with this in mind. Our standards for EMF emissions continue to be better than those required by Australian and international health authorities.

Along the proposed line route and at the substation boundary, EMF levels are expected to be well within the limits required by the International Commission on Non-Ionising Radiation Protection (ICNIRP) and similar to those encountered in daily life. Tests will confirm this during a survey of the proposed line route and substation site before the project is completed.

More detailed information on EMF and links to the ICNIRP website and other relevant organisations can be found on our [Electric and magnetic fields webpage](#).

## Get in touch with us

Senior Community Engagement Advisor, Kate Austin - on 1300 653 055 or email us at: [NetworkProjectEngagement@energyq.com.au](mailto:NetworkProjectEngagement@energyq.com.au) or visit our [project website](#) .



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